

2 . (Amended). A core segment comprising a plurality of packets of cut amorphous metal strips having an overlap and underlap joint.

In claim 5, please delete - - stack - - and substitute "segment".

In claim 19, please delete - - said bonding material - - and substitute "a bonding material"

REMARKS

RECEIVED  
JUN 21 1999  
TECHNOLOGY CENTER 2800

1. Rejections under 112

Applicants affirm the provisional election made by Mr. Buff on October 5, 1998.

The Examiner rejected claims 5-8 and 19 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claims 5 and 6 have been amended to recite said C, I, or straight "segment" construction.

As to the rejection of Claims 7 and 8 for recitation of "the edges", applicants disagree that no proper antecedent basis exists since each segment referred to in the independent claim inherently has edges. Nevertheless, in order to expedite prosecution, applicants have amended claim 1 to affirmatively recite "edges".

Claim 19 has been amended to recite "a bonding material" rather than "said" bonding material.

Withdrawal of the rejections are respectfully requested.

2. Rejections under 102/103

The Examiner rejected claims 1-3, 9, 14 and 15 under 35 U.S.C. 102(b) as being anticipated by Sclater U.S. Patent No. 2,548,624 ("Sclater."). The Examiner states that Sclater discloses amorphous metal transformer cores of the configurations sufficient to anticipate Applicants' claims. Applicants respectfully disagree.

While Sclater discloses a method for making an electrical induction apparatus by making yoke portions of the core by a bend or wound technique in combination with the conventional old style leg portions (See Col. 1 lines 49-53), nowhere does Sclater disclose any method or apparatus related to making an amorphous metal transformer. Sclater was concerned with using cold rolled silicon strip steel and a way to fit them into annealing furnaces. In fact, Sclater's patent issued years before amorphous metal alloys were invented. Therefore, Sclater's patent cannot anticipate the novel amorphous metal segmented transformers of the/e instant application.

Specifically, the problems facing Sclater were much different than those faced by amorphous metal transformer manufactures, because manufactures of transformers made with cold rolled silicon steel did not face the sensitive materials handling issues heretofore inherent in amorphous metal transformer manufacturing. Sclater was concerned with fitting together cold rolled silicon steel portions in a manner that would not require very large annealing furnaces. As a result, Sclater solution was directed to his assembling his pieces together with "butt joints", stating that "the longest pieces in the packages [ ] may be bent generally in the shape of a semi-circle and fitted with abutting ends into a ring-shaped form." (Col. 3 line 16-20). Thus, Sclater accomplishes his assembly by taking advantage of "butt joints between the ends of the packages" (Col. 3 line 46). Thus Sclater teaches away from the present invention since his solution relates only to cold rolled silicon steel transformer manufacturing.

Applicants, on the other hand, have devised a solution to the myriad of problems presented by the commercial production of amorphous metal transformers (i.e. thinness of the amorphous metal laminations, brittleness from annealing and difficulty in aligning laminations ends - see applicants specification page 1 col. 29 through page 2 line 29) by a technique which not only permits efficient commercial assembly of amorphous core transformers by ensures proper alignment of the amorphous metal laminations and avoids breakage and flaking of such laminations during assembly. Applicants have accordingly amended claims 1 and 2 to more particularly point out and distinctly claim their segment amorphous metal transformers having interlocking joints and segments having overlapping

and underlapping joints. Support of the amendments appears in Page 8 line 20 and Figures 4, 8,9 and 11 of the drawings. Accordingly no new matter has been added.

Moreover, Applicants respectfully submit that there is nothing in Sclater that would motivate one skilled in the art to look to his solution to solve the handling and manufacturing problems associated with amorphous metal transformer cores since there is no teaching or disclosure of amorphous metals. Furthermore, even if one of ordinary skill in the art were to look to Sclater, one would still not arrive at the interlocking joint and/or overlap and underlap joint segmented transformer of applicant's present invention, since Sclater teaches no more than abutting slabs of cold rolled silicon steel. In contrast, the techniques and segmented amorphous metal transformers of Applicants' invention, not only ensure ease of manufacture of proper alignment of the core laminations to avoid unnecessary core losses.

Finally, since Sclater formed the primary reference for the rejection of the remaining claims under 103 and contains no teaching or suggestion relating to amorphous metal transformer assembly, applicants respectfully submit that the combination of Sclater with the other references cited by the Examiner would not be proper. The Federal Circuit has stated that there must be something in the reference to suggest the desirability of the proposed combination. *In re Grabiak*, 226 USPQ 870 (Fed. Cir. 1985). The absence of a suggestion to combine is dispositive. *Cambro Lundia AB v. Baxter Healthcare Corp.*, 42 USPQ2d 1378 (Fed. Cir. 1997).

Moreover even if such combinations could be made, the combinations would not yield applicants inventions as set forth in the claims as amended. Accordingly, Applicants submit that claims 4,5-8, 16-26 that the rejections over Sclater, Sclater in combination with Lee et al Sclater in combination with Granfield and Sclater in combination with Ames et. al. have been overcome.

In sum, Applicants proffer that the fact that the only reference relating to transformer construction cited is over forty-eight years old, teaches away from the present invention since it relates only to cold rolled silicon steel, is not properly combinable with other references for the same reason and, even if followed, does not produce Applicants claimed invention as

amended is strong evidence of the patentability of Applicants invention. Allowance is respectfully requested.

Should the Examiner belief that a discussion of the case would in any way advance the prosecution, the Examiner is invited to telephone the undersigned at the number below.

Respectfully submitted,

Nathasingh et al.

By: 

John A. Squires  
Reg. No. 37,451

Date: June 8, 1999

AlliedSignal Inc.  
Law Department  
101 Columbia Road  
P.O. Box 2245  
Morristown, NJ 07962-2245  
Tel. (973) 455-5143  
Fax (973) 455-5904